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(54) Title: ASPHALT-MINERAL COMPOSITIONS CONTAINING A CATIONIC ORGANOSILICON COMPOUND

(57) Abstract: The present invention is related to asphalt and asphalt-mineral compositions including at least one cationic organosilicon compound selected from a group consisting of: $Y_{3-a}Si(R^1)_aR^2N^+R^3R^4R^5X^-$, $Y_{3-a}Si(R^1)_aR^2P^+R^3R^4R^5X^-$, $Y_{3-a}Si(R^1)_aR^2ZX^-$; or mixtures thereof, wherein in each formula Y is independently selected from a group consisting of OR, $O(CH_2CH_2O)_nH$, $(CH_3OCH_2CH_2O)_n$, and $(CH_3CH_2OCH_2CH_2O)_n$; a has a value selected from 0, 1 or 2; n is a value from 1 to 10; R is C1-C4 alkyl; R^1 is either methyl or ethyl; R^2 is C1-C4 alkylene group; R^3 , R^4 and R^5 are each independently selected from a group consisting of C1-C22 alkyl wherein at least one such group has more than 8 C-atoms, $-CH_2C_6H_5$, $-CH_2CH_2OH$, $-CH_2OH$ and $-(CH_2)_yNHC(O)R^6$ wherein y has a value of from 2 to 10 and R^6 is a C1-C12 perfluoroalkyl radical; X is chloride, bromide, fluoride, iodide, acetate or tosylate; and Z is pyridinium ring of formula $C_5H_5N^+$.



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